

How do farmers make decisions in a land degradation context? A case study from Northern Vietnam

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Topics covered

- ☐ Land use change and land degradation - Reforestation
- ☐ Northern uplands of Vietnam
- ☐ Impact of research programmes and state policies
- ☐ Farmers' decision making process
- ☐ Local factors
- ☐ Institutions

Land degradation

- A high academic and political interest worldwide
 - Soil erosion
 - Deforestation

- Responses
 - State land policies
 - Research programmes

A success under question in Vietnam

- Gap lowland **Small scale success but....**
- Increased forest cover but poor forest quality
- Incomes from trees plantations

Research questions

Why?
How?

Contribution

Existing literature

But highlight new determinants

□ Land use changes by farmers decisions by:
What happens when there is a change?

□ Adoption of conservation practices

How have farmers' perception of
institutions

■ Exploring perceptions
their environment has emerged
and evolved and why?

Methodology

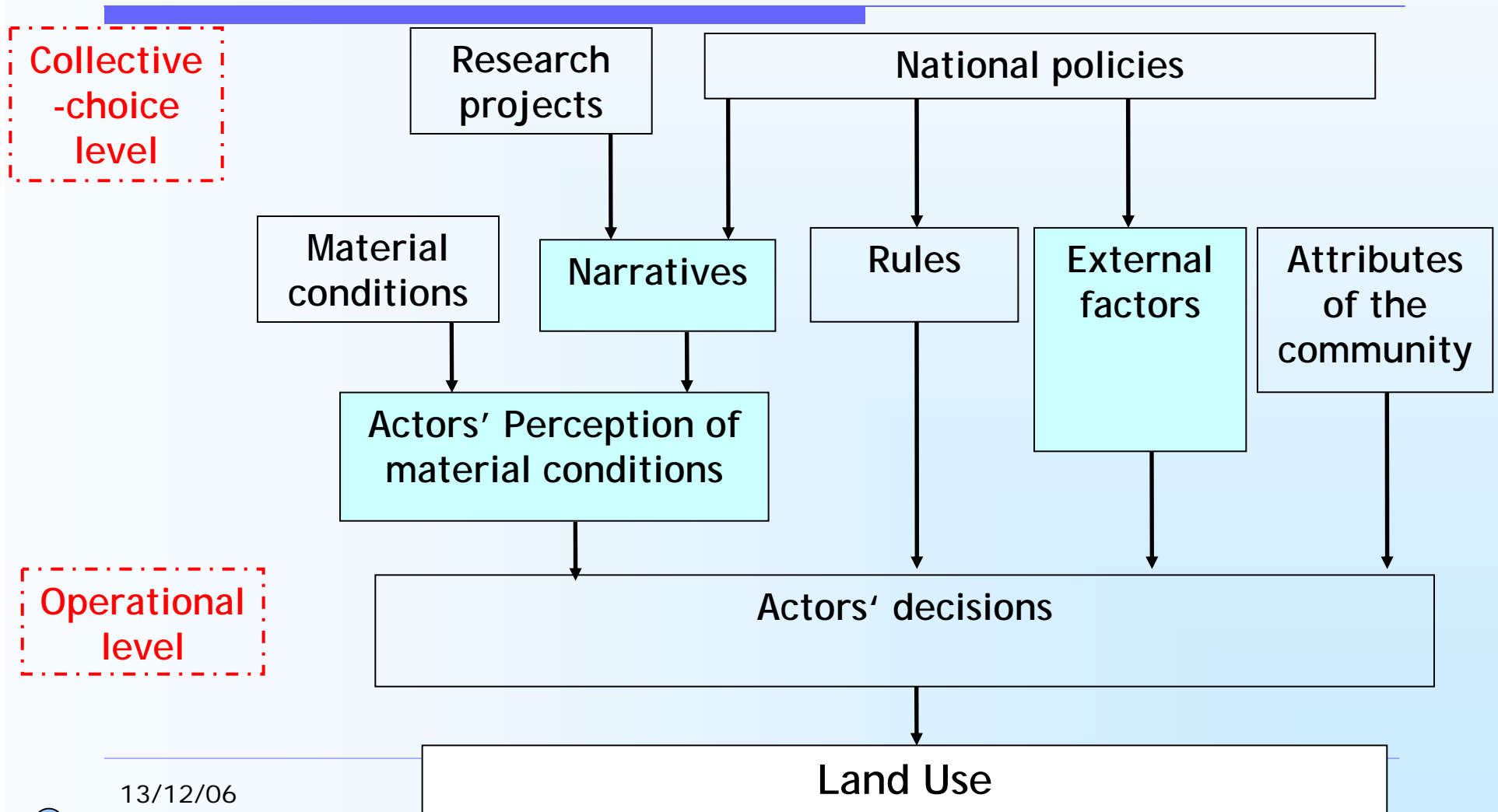
- Ethnographical approach
- Institutional analysis
- Perception of different actors

Institutions

In this study:

Rules governing access and use of
natural resources in the uplands

The IAD framework (Ostrom, 1999)



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Perceptions of land degradation

- ☐ Institutional and brute facts
- ☐ Soil erosion
- ☐ The perception of actors at the collective-choice level

Perception at the collective choice level

☐ Policy-makers

- Ethnic minorities land use practices
- Forests: an environmental panacea?

☐ Researchers

- Physical/social process: some critical approaches
- Participatory approaches and farmers' knowledge

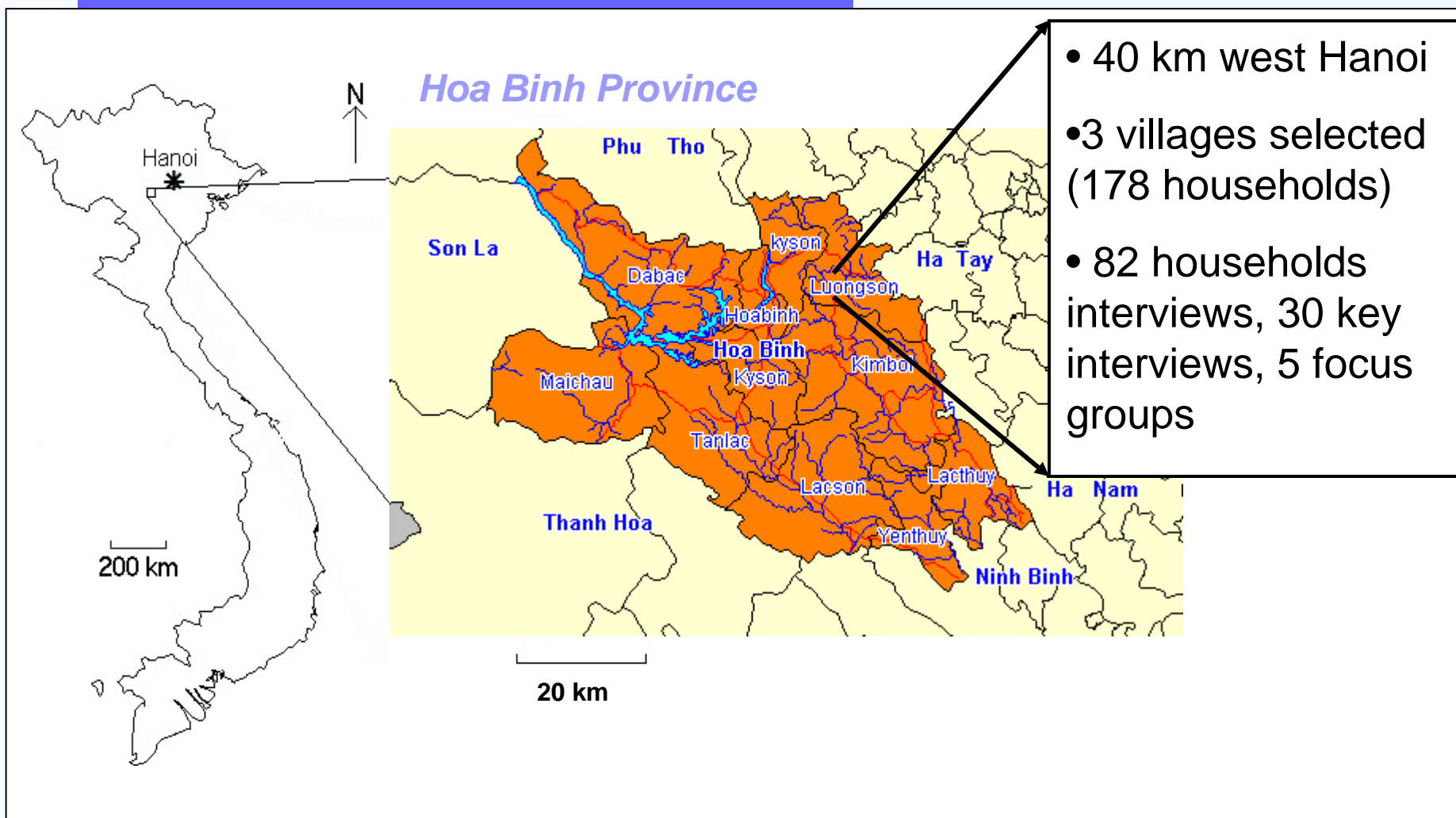
Forest and floods

*"Regarding forestry resources, **the over exploitation of natural resources have caused bad consequences to the climate** in recent years, especially **draught and storm** in the South in 1998, **big flood** in the Centre in 1999 and flood in Mekong River Delta in 2000."*

"Review on Rural Development Situation in Vietnam." MARD official website



Case-study area: Tien Xuan Commune (Hoa Binh Province)



Past and current activities

- ☐ Rice cultivation in the lowlands
- ☐ Husbandry: Buffaloes, cows, pigs, chickens and ducks
- ☐ Fish ponds
- ☐ Off-farm activities
- ☐ Cassava, maize, arrowroot and taro cultivation in the uplands
- ☐ Trees plantations



Land use in the uplands of Tien Xuan commune from the 80s till the start of 2000s

Land use in Tien Xuan commune uplands today



Hypothesis 1

Forest land
allocation

Subsidies for
reforestation

Research
programmes on
soil erosion



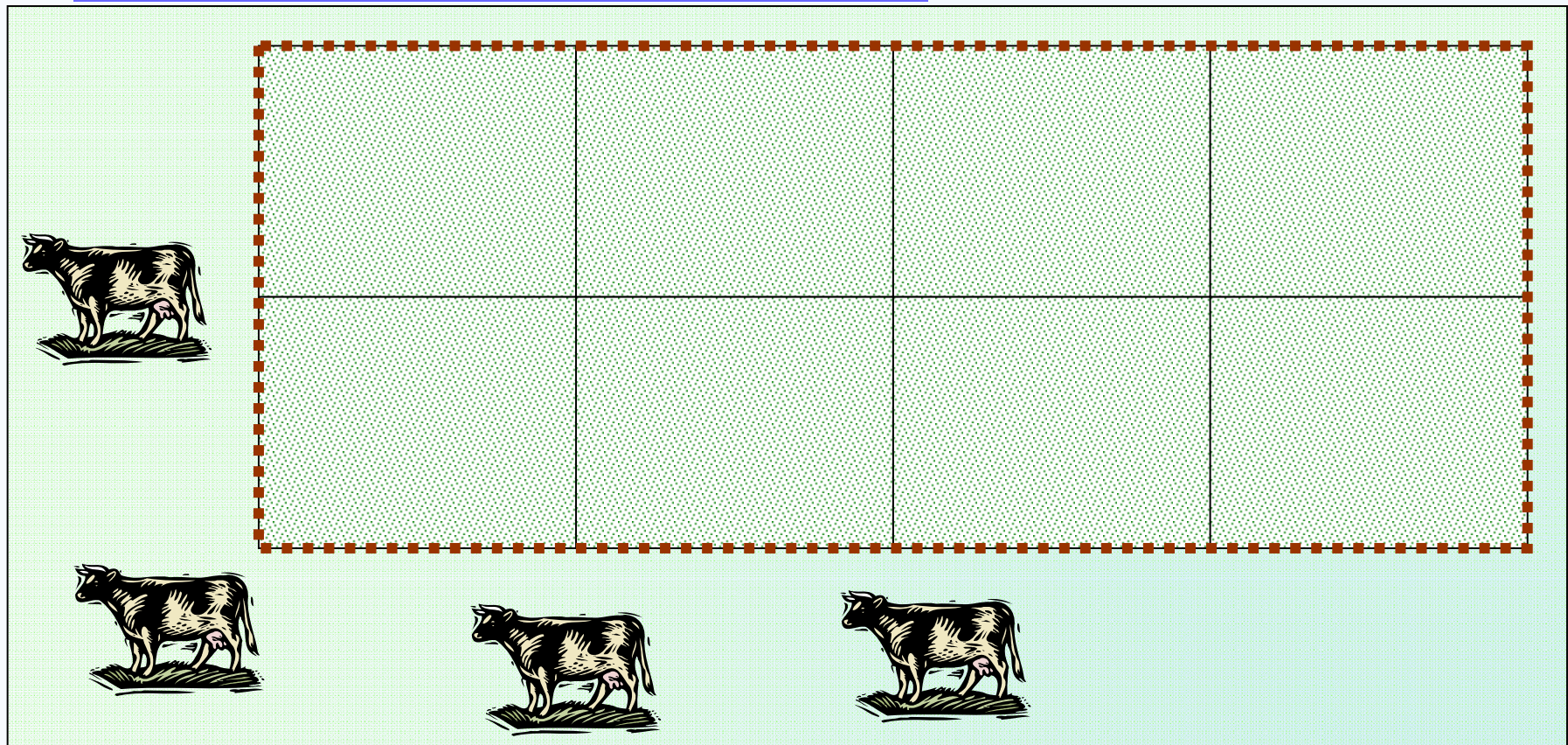
Reforestation

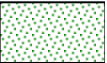

Driving forces for farmers' decisions

Reasons given by farmers to explain the end of annual crops cultivation in the 3 villages	Percentage of respondents who gave this reason
Damages caused by cows and buffaloes	51%
Soil was poor	40%
It was forbidden	22%
They sold the land	13%
It is what others did	9%
Not enough labour force	8%
Cassava prices were low / cultivation not profitable	8%
Work was too hard	2%
They wanted to plant trees	2%

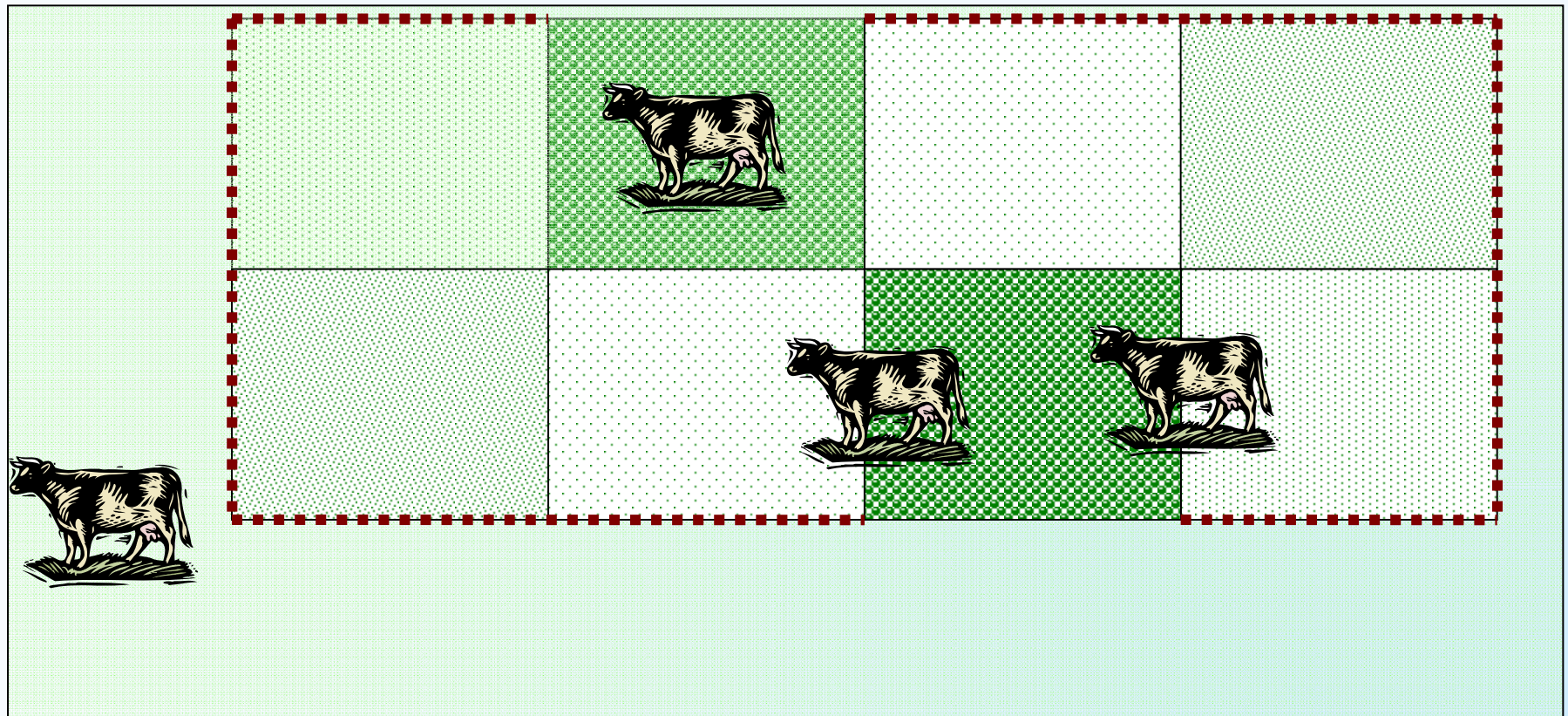
Figures from a 45 household samples

An institutional explanation with an historical perspective



-  Annual cropping
-  Fallow / Grazing land

An institutional explanation with an historical perspective



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Annual cropping



Trees plantations / fallow

Fallow / Grazing land

Farmers' perception

- ☐ Uplands
- ☐ Soil erosion
- ☐ Forests and water

Farmers' perception of reasons for uplands allocation

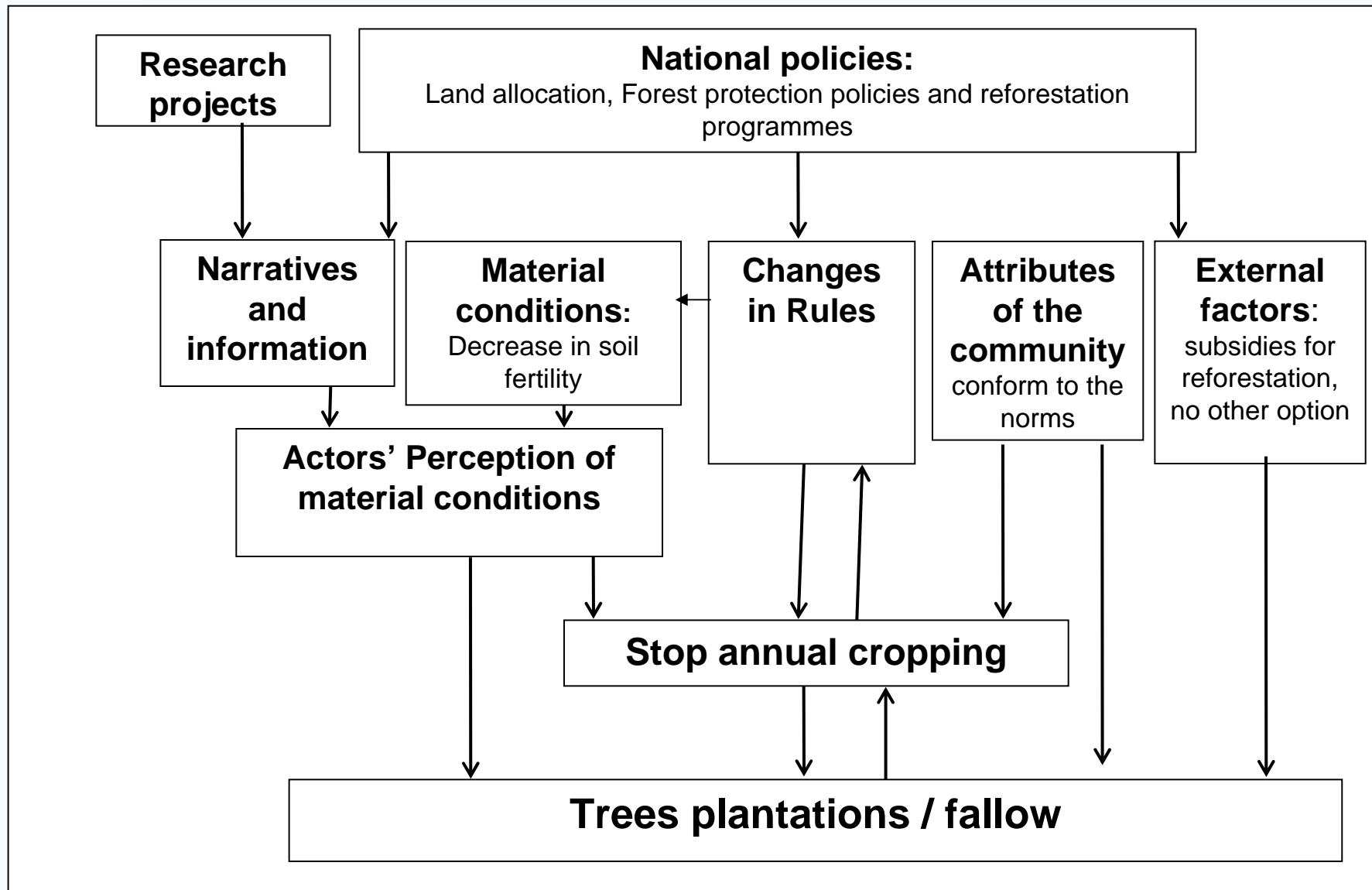
“because villagers have too much destroyed the mountain. Now we have to reforest to keep water in the mountain and to reduce soil erosion”.

Farmers perception of land degradation

“when there are heavy rains, water flows with humus”

“when we plant cassava we have to weed. But when we cultivate on steep slopes, soil runs with water and there are only stones left”

Understanding land use change



Key findings

- ❑ Reforestation was an accident
- ❑ Local factors were prominent over land use change
- ❑ Gap between different perceptions

Conclusion

- ☐ Local level studies
- ☐ Local institutions
- ☐ Perceptions

Thanks for your attention!



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